

## **SUNRIDGE CANYON DAM**

### **FCD GAGE ID# 5973**

#### **STATION DESCRIPTION**

**LOCATION** – The dam and gage are located in the town of Fountain Hills. Access to the gage is from Palisades Boulevard approximately 1/2 mile west of Golden Eagle Boulevard. Latitude N 33° 36' 24". Longitude W 111° 45' 06". Located in the NE1/4 NW1/4 S16 T3N R6E, in the Sawik Mountain 7.5-minute USGS quadrangle.

**ESTABLISHMENT** – The gage was installed on February 4, 1997.

**DRAINAGE AREA** – 1.6 mi<sup>2</sup>

**GAGE** – The gage is a pressure transducer type instrument. The transducer diaphragm is at 1.36 feet gage height.

**ZERO GAGE HEIGHT** - Zero is the invert of the inlet culvert. Elevation 1,884.66 feet M.S.L.

**HISTORY** – Gage installed February 4, 1997. No other history at this location.

#### **REFERENCE MARKS** –

RM1 – was established November 19, 1996 as a mark on the top of the inlet headwall and was marked with green paint. Elevation 6.05 feet gage height, or 1,890.71 feet M.S.L., levels of November 19, 1996.

RP1 – is the inlet invert elevation. Its elevation is 0.00 feet gage height, or 1,884.66 feet M.S.L. from the G.V. Sabol Fountain Hills North ADMS.

**CHANNEL AND CONTROL** – The primary outlet for the dam is a 48-inch RCP, 210 feet in length. The auxiliary outlet for the dam is a spillway on the left side of the dam.

#### **PRIMARY / AUXILIARY OUTLET** –

The primary outlet is a 48-inch diameter reinforced concrete pipe. The culvert inlet is at elevation 0.00 feet gage height, or 1,884.66 feet M.S.L. The culvert invert at the outlet is at elevation –2.19 feet gage height, or 1,882.47 feet M.S.L. Length of the culvert is 210 feet.

The auxiliary outlet is the spillway on the left side of the dam. The spillway crest elevation is 40.1 feet gage height, or 1,924.8 feet M.S.L.

Top of dam elevation is at about 47.7 feet gage height, or 1,932.4 feet M.S.L.

**RATING** – The rating for the discharge is from an analysis by G.V. Sabol for the Fountain Hills North ADMS. The current discharge rating is Rating #1.

The capacity rating is also from the Fountain Hills North ADMS. The current capacity rating is Rating #1.

**DISCHARGE MEASUREMENTS** – It may be possible to capture a discharge measurement from the outlet channel. Flows through the auxiliary spillway are probably too dangerous to attempt.

**POINT OF ZERO FLOW** – The point of zero flow is the invert of the outlet culvert, at 0.00 feet gage height.

**FLOODS / SIGNIFICANT IMPOUNDMENTS** – Peak event occurred on October 26, 1998 at a stage of 7.68 feet, and 0.2 acre-feet.

**REGULATION** – Sunridge Canyon Dam regulates flows through the natural wash.

**DIVERSIONS** – None known

**ACCURACY** – Good

**JUSTIFICATION** – Monitor flows and impoundments in Sunridge Canyon Dam for safety in the town of Fountain Hills.

**UPDATE** – August 18, 2011  
D E Gardner